

Key Words: Life After Cancer

Life After Cancer

More and more people are benefiting from the early detection of cancer and its successful treatment. These medical advances are improving both quality of life and length of survival, permitting many survivors to continue full and productive lives at home and at work.

Nevertheless, national data regarding life after cancer are limited. They include:

- Survival rates for cancer by each stage at diagnosis
- The estimated total number of survivors
- The economic impact of cancer

Few national measures are available that reflect health-related quality of life for cancer survivors, such as:

- The ability of cancer survivors to perform daily tasks
- The impact of cancer on employment and insurability
- The effects of cancer on family and loved ones

These and other measures related to life after cancer are subjects of intense research interest as well as matters of great concern to cancer survivors themselves. Future editions of the *Cancer Progress Report* will include additional measures in this area.

Survival

Five-year survival rates have improved for all sites combined.



Cancer Survival

Advances in the ways cancer is diagnosed and treated have increased the number of people who are cured of cancer or who live long periods of time free of their disease. This report looks at trends in 5-year survival rates for cancer, the time period traditionally associated with cure. However, we know that some people have a recurrence of their cancer after 5 years.

In 1997, more than 7 million Americans were alive who had been diagnosed with cancer and had survived for up to 20 years. Of these, more than 1.5 million had been diagnosed with breast cancer, and more than 1 million had been diagnosed with prostate cancer. An additional unknown number of people—perhaps around 1 million—were alive in 1997 who had survived more than 20 years after cancer.

Measure

Five-year relative cancer survival rate: The proportion of patients surviving cancer 5 years after their diagnosis. This report shows survival rates for cancers of the prostate, breast, colon/rectum, and lung, and for all cancers combined.

Period – 1975-1993
(year diagnosed)

Trends – Rising overall

All sites: Rising slightly, then rising

Prostate: Rising slightly, then rising

Breast: Stable, rising slightly, rising, then stable

Colorectal: Rising, then falling slightly, though the latter trend is not statistically significant

Lung: Rising slightly

Five-year survival rates are highest for prostate and breast cancers and lowest for lung cancer.

Most Recent Estimate

For people diagnosed with cancer (all sites) in 1993, 62 percent survived cancer after 5 years.

Healthy People 2010 Target

Increase to 70 percent the proportion of cancer survivors who are living 5 years or longer after diagnosis.

LIFE AFTER CANCER

Key Word: Survival

Survival *(continued)*

Groups at High Risk for Poor Survival

People with cancers diagnosed at late stages have the worst chance of survival.

Some cancers, like pancreatic cancer and lung cancer, are especially aggressive and have poor survival no matter what the stage at diagnosis.

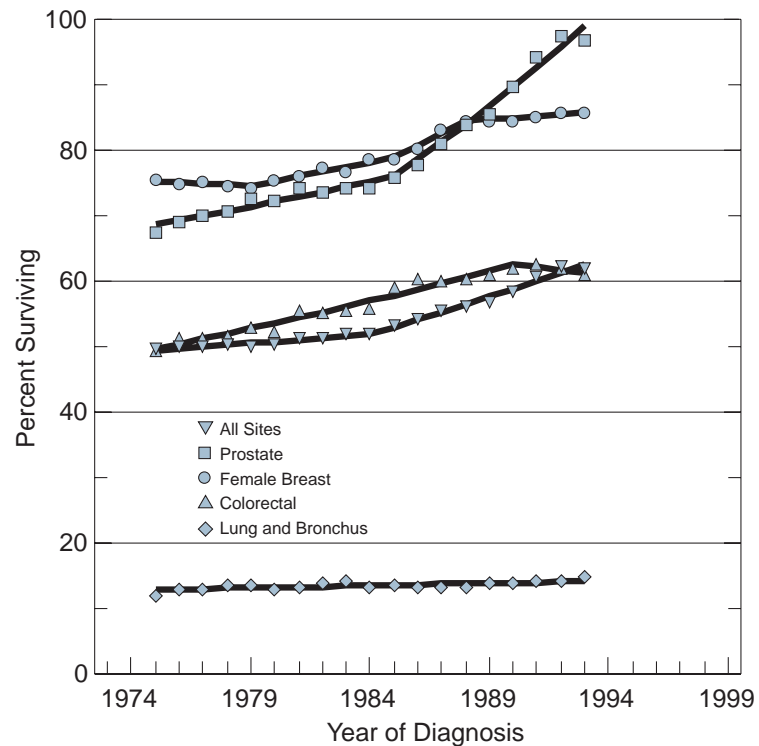
For other cancers that have good results from treatment, such as breast and colorectal cancers, patients who had not taken advantage of screening opportunities or who have poor access to health care are at highest risk.

Key Issues

Improved survival rates result from both early detection and better treatments. It is difficult to separate out the contribution of each factor.

Despite the positive trends in 5-year survival for three of the most common cancers, lung cancer survival rates are low.

Figure 23: 5-Year Relative Survival Rates, by Site—1975-1993



Source: SEER Program, National Cancer Institute.

Costs of Cancer Care

Cancer treatment spending has risen but remains stable in proportion to total U.S. treatment spending.

The financial costs of cancer treatment are a burden to people diagnosed with cancer, their families, and society as a whole. Cancer treatment accounted for about \$41 billion in 1995, the most recent year for which there is information. This is just under 5 percent of total U.S. spending for medical treatment. In the 10 years from 1985 to 1995, the overall costs of treating cancer more than doubled.

High-quality cancer care is not necessarily the most expensive care. It would be desirable to see the overall costs of cancer treatment decrease relative to total health care costs. In the near future, however, these costs may increase as the population ages and the absolute number of people treated for cancer increases. Costs also are likely to increase at the individual level as new, more advanced, and more

expensive treatments are adopted as standards of care.

NCI will continue to monitor cancer costs and track the percentage of total medical costs accounted for by cancer care. Over the last three decades, this percentage has remained remarkably constant.



As total spending for medical treatment rose between 1963 and 1995, so did spending for cancer treatment.

Year	Cancer Treatment Spending (billions)	Total Health Care Spending (billions)	Percent of Cancer Treatment Spending to Total
1963	\$1.3	\$29.4	4.4%
1972	\$3.9	\$78.0	5.0%
1980	\$13.1	\$217.0	6.0%
1985	\$18.1	\$376.4	4.8%
1990	\$27.5	\$614.7	4.5%
1995	\$41.2	\$879.3	4.7%

Table 1: National Cancer Treatment Expenditures in Billions of Dollars—1963–1995

Source: Brown ML, Lipscomb J, Snyder C. *The burden of illness of cancer: economic cost and quality of life. Annual Review of Public Health 2001;22:91–113.*

Spending for each year is expressed in current dollars for that year. While cancer treatment costs increased dramatically between 1963 and 1995, the proportion of

these to all health care expenditures remained stable. Cancer spending in this chart does not include screening, which cost an additional \$5 billion to \$10 billion in 2000.

Key Word: Costs

Costs of Cancer Care *(continued)*

Treatment expenditures for each of the four most common cancers are remarkably similar. However, individual costs for other cancers based on Medicare data show wide variation by type of cancer.

	Percent of all new cancers (1998)	Expenditures (In billions of 1996 dollars)	Percent of all cancer treatment expenditures	Average Medicare payments per individual in first year following diagnosis
Breast	18.2%	\$5.4	13.1%	\$9,230
Colorectal	11.7%	\$5.4	13.1%	\$21,608
Lung	12.5%	\$4.9	12.1%	\$20,340
Prostate	13.6%	\$4.6	11.3%	\$8,869
Lymphoma	4.2%	\$2.6	6.3%	\$17,217
Bladder	4.0%	\$1.7	4.2%	\$10,770
Cervix	2.3%	\$1.7	4.1%	\$13,083
Head/Neck	3.3%	\$1.6	4.0%	\$14,788
Leukemia	2.1%	\$1.2	2.8%	\$11,882
Ovary	1.7%	\$1.5	3.7%	\$32,340
Melanoma	5.2%	\$0.7	1.7%	\$3,177
Pancreas	2.1%	\$0.6	1.5%	\$23,504
Esophagus	0.9%	\$0.4	0.9%	\$25,886
All Other	18.1%	\$8.7	21.2%	\$17,201
Total	100.0%	\$41.0	100%	

Table 2: Estimates of National Expenditures for Medical Treatment for the 13 Most Common Cancers—Based on Cancer Prevalence in 1996 and Cancer-Specific Costs for 1995-1998, Expressed in 1996 Dollars.

Source: Brown ML, Riley GF, Schussler N, Etzioni R. Estimating health care cost from SEER-Medicare data. Submitted to Medical Care.

The first-year costs for lung and colorectal cancer are higher because screening is not commonly used in the detection of these cancers. If screening for colorectal cancer were performed as recommended, the proportion of cases presenting at advanced stages—when treatment is more extensive and costly—would be reduced.

Medicare does not cover certain cancer care expenses, such as oral medicines commonly used to treat cancers of the breast and prostate. These out-of-pocket costs may add as much as 10 percent to the estimates shown above.

Direct medical expenditures are only one component of the total economic burden of cancer. The indirect

costs include losses in time and economic productivity resulting from cancer-related illness and death. Based on 1990 data, the total economic burden of cancer in 1996 was an estimated \$143.5 billion.